

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
27 October 2005 (27.10.2005)

PCT

(10) International Publication Number  
**WO 2005/101625 A1**

(51) International Patent Classification<sup>7</sup>: **H02M 1/10**

(21) International Application Number:  
PCT/IB2005/051130

(22) International Filing Date: 6 April 2005 (06.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
04101489.5 13 April 2004 (13.04.2004) EP

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

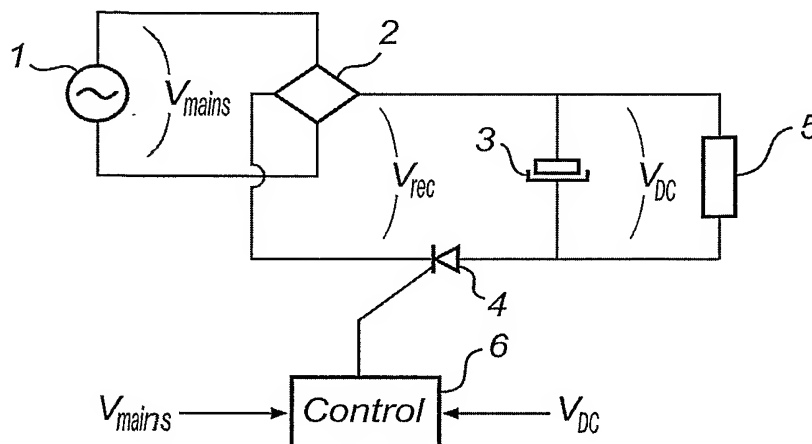
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VOLTAGE REGULATING CIRCUIT



(57) **Abstract:** A voltage regulating circuit comprising a rectifier (2) for receiving an AC voltage ( $V_{mains}$ ) and for generating a rectified AC voltage ( $v_{rec}$ ), and a capacitor (3) connected in parallel with said rectified AC voltage for providing a DC voltage ( $V_{DC}$ ) over a load (5), characterized by a unidirectional current switch (4) provided between the rectifier (2) and the capacitor (3), and a control block (6) arranged to activate the switch (4) at selected instances (7) during negative slopes of the rectified AC voltage ( $v_{rec}$ ) so that said DC voltage ( $V_{DC}$ ) does not exceed a predetermined voltage limit. By controlling the voltage provided by the rectified mains, the DC voltage can be regulated to any preset value (lower than the AC mains peak value). The inventive voltage stabilizer will guarantee a desired constant DC load voltage value for different mains peak input voltages and under wide range of load variations. Thereby a converter driven by this voltage can be more optimized or even be unregulated.

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